# Program for APLAS Sapporo 2008

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<tr>
<th>Date</th>
<th>Eminence Hall A (2F)</th>
<th>Eminence Hall B (2F)</th>
<th>Ohgi Room (3F)</th>
<th>Rose Room (2F)</th>
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<tbody>
<tr>
<td>Oct. 21</td>
<td>Registration 16:30 - 20:00 @Clover Room (2F)</td>
<td>Welcome reception 18:00 - 20:00 @ Pegasus (22F)</td>
<td>Registration 8:00 - 19:00 @ Eminence Hall Foyer (2F)</td>
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<td></td>
<td><strong>Opening ceremony</strong></td>
<td><strong>Keynote lectures</strong></td>
<td><strong>Break 12:00 - 13:30</strong></td>
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<td>9:30 - 10:30</td>
<td>10:30 - 12:00</td>
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<td>Oct. 22</td>
<td><strong>1A</strong> Landfill remediation and reclamation</td>
<td><strong>1B</strong> Hybrid presentation (Oral)</td>
<td><strong>1C</strong> Biorecycling (1)</td>
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<td>Coffee break 15:30 - 16:00 @ Eminence Hall Foyer (2F)</td>
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<td><strong>2A</strong> Landfill design and processes</td>
<td><strong>2B</strong> Hybrid presentation (Oral)</td>
<td><strong>2C-1</strong> Biorecycling (2)</td>
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<td>16:00 - 18:00</td>
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<td>2C-2 C&amp;D waste</td>
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<td><strong>Poster</strong></td>
<td><strong>10:00 - 12:20</strong></td>
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<td>15:10 - 16:00</td>
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<td>Oct. 23</td>
<td><strong>3A</strong> Waste characterization and collection</td>
<td><strong>3B</strong> Hybrid presentation (Oral)</td>
<td><strong>3C</strong> Hazardous and special waste management</td>
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<td>Thursday</td>
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<td><strong>4A</strong> Landfill gas and waste degradation</td>
<td><strong>4B</strong> Hybrid presentation (Oral)</td>
<td><strong>4C</strong> Integrated waste management</td>
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<td>Coffee break 16:00 - 16:30 @ Eminence Hall Foyer (2F)</td>
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<td><strong>5A</strong> Thermal treatment</td>
<td><strong>5B</strong> Waste management in developing countries</td>
<td><strong>5C</strong> Leachate treatment</td>
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<td>16:30 - 18:10</td>
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<td>Oct. 24</td>
<td><strong>Farewell party</strong></td>
<td><strong>Excursion</strong></td>
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<td>Friday</td>
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Note: The simultaneous interpreter (English ⇔ Japanese) is available in Eminence Hall A and Ohgi Room.

**Companies Exhibition @Plaza Hall (B1F)**
- Oct. 22 9:00 – 19:00
- Oct. 23 9:00 – 16:30

**International Advisory Board Committee @Pegasus (22F)**
- Oct. 22 19:00 – 21:00
Symposium Floor Plan

3rd Floor

Ohgi Room
(Oral presentation)

2nd Floor

Eminence Hall A
eMinence Hall B
Opening ceremony
Keynote lecture
Oral presentation
Farewell Party

Reception desk

Fire hydrant

B1 Floor

Plaza Hall
(Companies Exhibition)

Fire hydrant
Social Events

**Tuesday 21st October**
18:00 – 20:00  **Welcome Reception**  Pegasus (22F)

**Thursday 23rd October**
19:00 – 21:00  **Farewell Party**  Eminence Hall (2F)

**Excursion**

*Meeting Place*  Keio Plaza Hotel Sapporo Lobby (1F)

*Meeting Time*  8:45 am

*Departure Time*  9:00 am

*Arrival time*  17:00 pm

**Course A-1【4,000 yen】:**

*Recycling facilities in Sapporo + City sightseeing (including Lunch)*

Keio Plaza Hotel Sapporo → Nakanuma Recycling Center → Moerenuma Park → Gateaux Kingdom SAPPORO (Lunch) → Okurayama (Sapporo Winter Sports Museum) → Keio Plaza Hotel Sapporo

**Course A-2【4,000 yen】:**

*MSW incineration facility in Sapporo + City sightseeing (including Lunch)*

Keio Plaza Hotel Sapporo → Shiroishi Incineration Plant → Moerenuma Park → Gateaux Kingdom SAPPORO (Lunch) → Okurayama (Sapporo Winter Sports Museum) → Keio Plaza Hotel Sapporo

**Course B 【6,000 yen】:**

*Sightseeing in Toya Lake (including Lunch)*

Keio Plaza Hotel Sapporo → Volcano Science Museum → Lunch (Lakeside) → USUZAN Rope Way (Showa Shinzan) → The Windsor Hotel TOYA (from a bus window) → Keio Plaza Hotel Sapporo
**Wednesday October 22 - Morning**

**Opening Ceremony** *(Eminence Hall A and B, 9:30 – 10:30)*

**Welcome Addresses by**

- **Fumio Ueda** / Chairperson of APLAS Sapporo 2008; Mayor, City of Sapporo, Japan
- **Toru Furuichi** / Chairperson of APLAS Sapporo 2008; Professor, Hokkaido University; Vice-president, The Landfill Systems & Technologies Research Association of Japan, NPO, Japan
- **Hiroki Hashizume** / Director, Waste Management Division, Waste Management and Recycling Department, Ministry of the Environment, Government of Japan
- **Harumi Takahashi** / Governor of Hokkaido Government, Japan
- **Kazuo Yamamoto** / President, The Japan Society of Waste Management Experts, Japan
- **Masataka Hanashima** / Chairperson of International Advisory Board of APLAS, Japan

**Keynote Lecture** *(Eminence Hall A and B, 10:30 – 12:00)*

**Chairmen** / Raffaello Cossu (Italy) and Takayuki Shimaoka (Japan)

**Opening Remarks**

**Raffaello Cossu** (Chairman of Sardinia Symposium; Professor, The University of Padua, Italy)

**KL-1 Takeshi Sekiya** (Head of Taskforce for the 3R Initiative, Waste Management and Recycling Department, Ministry of the Environment, Government of Japan)

*Japan's Actions towards Sound Material-cycle Society in Asia and the Pacific*

**KL-2 Gerhard Rettenberger** (Trier University of Applied Science)

*Tendencies in Future Waste Management in Europe*
Session 1A  (Eminence Hall A, 13:30 – 15:30)

Landfill Remediation and Reclamation

Chairmen / Raffaello Cossu (Italy) and Masataka Shishime (Japan)

IA-1 Tariq Yousuf (Bangladesh)
Rehabilitation of an Open Dump into Sanitary Landfill

IA-2 Samanthi Menikpura, Benedict F.A. Basnayake, Kahadeni P.M.N. Pathirana, and Selenis A.D.N. Senevira (Sri Lanka)
Prediction of Present Pollution Levels in Gohagoda Dumpsite and Remediation Measures: Sri Lanka

IA-3 Yuwei Xue, Jianguo Liu, Dongbei Yue, Rui Li and Yuanyuan Zhang (China)
Study on Permeable Reactive Barrier for In-situ Treatment of Leachate from Dumping sites

IA-4 Byungsun Lee, Kyungduk Na, Kабseok Choi, Seungtaek Park (Korea) and Yoshikazu Otsuka (Japan)
A Case Study of the First Life Extension Project of Closed Sanitary Landfill in South Korea

IA-5 Yoshiyuki Shinogi, Rie, Fujiie, Takahiro Shiono and Takeo Shima, Yoko Nakagawa (Japan)
Estimation of Leached Nitrate-nitrogen in Groundwater Basin of Miyako Island, Japan

IA-6 Kai Münnich, Jan Bauer and Klaus Fricke (Germany)
Distribution of Leachate Discharge at the Base of MSW Landfills
Session 1B  (Eminence Hall B, 13:30 – 15:30)

Hybrid Presentation (Oral presentation)

Poster Presentation (Rose Room, October 22, 18:00-19:00)

Chairmen / Tomoo Sekito (Japan)

Integrated Waste Management

1B-1 Risto Pöykiö, Hannu Nurmesniemi and Riitta L. Keiski (Finland)
Reduce, Reuse and Recycle – The 3R Concept and Waste Management at a Northern Finnish Pulp and Paper Mill Complex

1B-2 Satoshi Kuroishi, Kenji Goto, Fumiki Hosho and Fumihiko Nakai (Japan)
Development of the Molten Processing Technology for the Resources Recycling Society Realization

1B-3 Kazuhito Nakaishi, Fujio Igari, Katsuhiko Hayashi, Yoshinosuke Hamada, Suehiko Yokota, Toru Furuichi and Masataka Hanashima (Japan)
Basic Study on Methodology of Selection of a Site Suitable for Landfill Taking Environmental Risks into Consideration

1B-4 Naoki Sato, Toru Furuichi, Kazuei Ishii and Noboru Tanikawa (Japan)
Multi Criteria Decision Making for Regional Organic Waste Management Systems Using Analytic Network Process

1B-5 Takeshi Sato, Toru Furuichi, Noboru Tanikawa and Kazuei Ishii (Japan)
Study of Public Endurance in the Separation and Discharging Actions in the Recycling of Kitchen Waste in Japan

1B-6 SangYul Kim (Korea), Toru Furuichi, Noboru Tanikawa and Kazuei Ishii (Japan)
A Case Analysis of the Decision Making Processes with Resident Participation for Removal of Environmental Problems due to Illegal Dumping of Wastes

1B-7 Manami Fujikura, Toru Furuichi, Noboru Tanikawa and Kazuei Ishii (Japan)
Proposal of Risk-based Remediation Policy for Illegal Dumping Sites in Japan
Hazardous and Special Waste Management

1B-8  Jae-cheon You, Dong-hoon Lee (Korea)

*Statistical Analysis (PCA, HCA) of PCDDs/Fs, Co-Planar PCBs in Industrial Facilities of Korea*

1B-9  Yong-keun Kim, Han Sang Cho, Che-yun Eom and Jae Young Kim (Korea)

*Mitigation of the Mass Transfer of Trichloroethylene through Palladaized Iron-based Reactive Geomembrane and Effect of Sulfide, Humic Acid and Aging*

1B-10 Yasumasa Tojo, Shinya Mizubayashi, Takayuki Matsuo, Hirofumi Sakanakura, Masahiro Osako and Toshihiko Matsuto (Japan)

*External Factors Affecting Leaching Characteristics of Heavy Metals from Recycled Material Produced for Construction Use*
**Session 1C**  
*(Ohgi Room, 13:30 – 15:30)*

**Biorecycling (1)**

**Chairmen / Luis F. Diaz (USA) and Ikuo Souta (Japan)**

**1C-1** L.F. Diaz, G.M. Savage, L.L. Eggerth and A. Chiumenti (USA)  
*State of the Art of Composting in MSW Management*

**1C-2** Rahman M. H., Al-Muyeed A. and Bari M. E. (Bangladesh)  
*Evaluation of Solid Waste Composting in Bangladesh*

**1C-3** D. Komilis, A. Evangelou, A. Apostolou, G. Giannakis, D. Kalpakis, G. Lazaridis, M. Margariti, E. Voudrias (Greece)  
*Co-composting of Dewatered Wastewater Sludge with the Organic Fraction of Municipal Solid Waste*

**1C-4** Rokuta Inaba, Toru Furuichi, Toshihiro Komatsu, Noboru Tanikawa and Kazuei Ishii (Japan)  
*Biogasification of Illegally Dumped Wastes for Energy Recovery*

**1C-5** Hiromi Sawamura, Masato Yamada, Tomohiro Naruoka, Daisuke Inoue, Michihiko Ike and Tomonori Ishigaki (Japan)  
*Possible Factors Affecting Enhanced Biological Hydrogen Production from Organic Waste by Addition of Solid Waste Incineration Ash*

**1C-6** Eunjeong Jeon, Jung Sik Kim, Ho Yeon Lee, Hwasoo Oh, Youngback Kim, Seokhwan Hwang (Korea)  
*Anaerobic Co-Digestion of Food Wastewater and Sewage Sludge in Batch Test*
Session 2A  
(Eminence Hall A, 16:00 – 18:00)

Landfill Design and Processes

Chairmen / Gerhard Rettenberger (Germany) and Hideki Yoshida (Japan)

2A-1 Gunnar Hädrich, Werner Bidlingmaier and Eckhard Kraft (Germany)
   Assessment Algorithm to Generate Adapted Landfill Concepts for Developing Countries

2A-2 Mahar Rasool Bux, Liu Jingua, Yue Dongbei and Nie Yong Feng (Pakistan)
   Sustainable Landfiling Approach: Two Stage Bioreactor

2A-3 Yu Wang and Markku Pelkonen (Finland)
   Impacts of Temperature and L/S on Anaerobic Degradation of Municipal Solid Waste – an Emission Investigation of Landfill Simulation Reactors

2A-4 Osamu Hirata, Yasushi Matsufuji, Ayako Tachifuji and Ryuji Yanase (Japan)
   GHGs Emission of Different Landfill Types with Organic Waste by Large Lysimeters

2A-5 Kai Münnich (Germany) and Ronaldo Izzo (Brazil)
   Use of MBT Waste Material in Cover Systems of Landfills

2A-6 Jan Bauer, Florian Koelsch and André V.A. Borgatto (Germany)
   Stability Analysis According to Different Shear Strength Concepts Exemplified by Two Case Studies
Session 2B  (Eminence Hall B, 16:00 – 18:00)

Hybrid Presentation (Oral presentation)

Poster Presentation (Rose Room, October 22, 18:00-19:00)

Chairmen / Ayako Tanaka (Japan)

Waste Characterization and Collection

2B-1 Dukwoo Jun, Han Sang Cho, Cong Duc Phan, Fabien Senez and Jae Young Kim (Korea)
   Evaluation on the Availability of Solid-thickening Technology for the Anaerobic Digestion in the Disposer System

2B-2 Hiroyuki Inano, Kohji Itabashi, Takashi Okada and Yasumasa Tojo (Japan)
   Characterization of Melting Fly Ash from MSW by X-ray Photoelectron Spectroscopy

Landfill Remediation and Reclamation

2B-3 Takuya Suzuki and Ken-ichi Fukushi (Japan)
   Runoff Behavior of Micropollutants from Illegal Dumping Site of Hazardous Wastes in Japan

2B-4 Mitsuo Yoshida (Japan), Hamadi Kallali and Ahmed Ghrabi (Tunisia)
   Subsurface Contamination of Potentially Toxic Elements Caused by Unlined Landfill

2B-5 Mika Otsuka, Toru Furuichi, Kazuei Ishii and Noboru Tanikawa (Japan)
   A Study of Factors Controlling the Rate of Biodegradation of Tetrachloroethylene for In Situ Remediation of Illegal Dumping Sites

2B-6 Hiroshi Ikeda, Toru Furuichi, Kazuei Ishii and Noboru Tanikawa (Japan)
   Fundamental Study on the Treatment of Waste Contaminated by Multiple Volatile Organic Compounds at Illegal Dumping Sites: Effectiveness of Changing from Anaerobic to Aerobic Processes on Biodegradation
Waste Management in Developing Countries

2B-7 Hossein Ganjidoust, Matin Hajizadeh, Mostafa Khezri and Masoud Monavvari (Iran)
Municipal Solid Waste Minimization Programs in Alvand, Qazvin, I.R.Iran

2B-8 Markku Pelkonen and Murad Khan (Finland)
Management of Organic Waste in Developing Countries with Special Attention to Biogasification – Case Bangladesh

2B-9 Xu Haiyun (China)
Municipal Solid Waste Management Research and Practice in Towns and Villages

2B-10 Prayogo, Tri Budi (Indonesia), Tomoo Sekito and Yutaka Dote (Japan)
Solid Waste Management Problem at the Rapid Growing City Case Study: Malang City
Session 2C  (Ohgi Room, 16:00 – 18:00)
Biorecycling (2) and C&D Waste

Chairmen / Jaehyuk Hyun (Korea) and Yasumasa Tojo (Japan)

2C-1 Pornpen Jittiwuttinon, Teppei Nunoura, Fumiyuki Nakajima and Kazuo
Yamamoto (Japan)
Carbonization of Agricultural Waste Biomass under Elevated Pressures

2C-2 Yoshiyuki Shoinogi, Takahiro Shiono, Teruhito Miyamoto, Koji Kameyama
and Chen Yan (Japan)
Effective Biomass Refinery System Case Study at Miyako-island, Japan

2C-3 Gautam K. Nagda and Vikram S. Ghole (India)
Biosorption Potential of Tendu Leaf Waste from Local Bidi Industry – A Value
Added Alternative to Landfill Use

2C-4 Jose Alfaro Montero (Costarican), Yasumasa Tojo, Takayuki Matsuo,
Toshihiko Matsuto, Masato Yamada and Yusaku Ono (Japan)
Material Flow Analysis of Mixed C&D Waste Treatment Facility for
Identifying the Factor Affecting Residue Quality

2C-5 Hiroyuki Ohno, Hiroyuki Tosaka, Tomoaki Hachimura, Tetsuya Miyahara,
Kenji Matsumoto, Koichi Utsugi, Kou Kitaoka, Akira Yamamoto and Yoshiki
Yamamoto (Japan)
Situation and Environmental Risk of the Waste at/after Disaster and the
Tentative Waste Strorage

2C-6 Nagahisa Hirayama and Yoshiaki Kawata (Japan)
Emergency Debris Management Including Wide Area Cooperative Measures
on the Super Huge Disasters
Thursday October 23 - Morning

Keynote Lecture (Eminence Hall A and B, 8:30 – 9:30)

Chairmen / Fumiyoshi Ohno (Japan)

KL-3  Enri Damanhuri (Professor, Institute Technology Bandung, Indonesia)
      A Future Prospect of Municipal Solid Waste Management in Indonesia

KL-4  Luis F. Diaz (CalRecovery, Inc., USA)
      MSW Management in Asian Countries and in the USA
      – An Overview
Session 3A  
*(Eminence Hall A, 10:00 – 12:20)*

**Waste Characterization and Collection**

*Chairmen / Ronald Mersky (USA) and Kenji Yasuda (Japan)*

**3A-1** Kandula P. K. Jayakody, Lahiru N. Jayakody, Anurudda K. Karunarathna and Benedict F.A. Basnayake (Sri Lanka)

*Municipal Solid Waste Management System and Solid Waste Characterization at Hikkaduwa Secretariat, Galle, Sri Lanka*

**3A-2** Ronald L. Mersky (USA)

*Verification of Exponential Distribution of Arrival and Service Times at Municipal Solid Waste Facilities*

**3A-3** Shinya Suzuki, Masachika Yamashita, Ayako Tachifuji and Yasushi Matsufuji (Japan)

*Characteristics on Waste Disposing Behavior and Density Distribution of Combustible Waste Bag*

**3A-4** Xinmi Yang, Takao Okashiro, Katsuhiko Kuniyasu and Hideo Ohmori (Japan)

*Impact of Food Waste Disposers on the Generation Rate and Characteristics of MSW*

**3A-5** Tri P. Damanhuri, Shanty N. Artha and Enri Damanhuriri (Indonesia)

*Characteristics of Wastes from Leuwigajah Final Disposal after Landsliding*

**3A-6** Jan Bauer, Kai Muennich and Klaus Ficke (Germany)

*Evaluation of Geotechnical methods for the Determination of Waste Strength Parameters*

**3A-7** Shunsuke Kashiwakura, Hideki Maekawa and Tetsuya Nagasaka (Japan)

*Morphological Analysis of Boron in Coal Fly Ash from Coal Combustion Type Electric Power Plants*
Session 3B  (Eminence Hall B, 10:00 – 12:20)

Hybrid Presentation (Oral presentation)

Poster Presentation (Rose Room, October 23, 15:10-16:00)

Chairmen / Rokuta Inaba (Japan)

Landfill Design and Processes

3B-1 Shigeyoshi Imaizumi, Masazumi Wataru, Naoki Takahashi and Yoichi Doi  
(Japan)  
Estimation of Critical Ratio of Bentonite Addition

3B-2 Kengo Kudo, Hiroki Kato, Sadahiko Usami, Shigeyoshi Imaizumi, Masataka  
Hanashima and Toru Furuichi (Japan)  
Trap-door Tests with Slow Deformation for Bentonite Mixed Soil Liner

3B-3 Fujio Igari, Sho Yanagita and Shigeyoshi Imaizumi (Japan)  
Mechanical Properties of Ash Molten Slag Mixed with Bentonite

Landfill Gas and Waste Degradation

3B-4 Yoshikazu Otsuka, Kazuei Ishii, Masataka Hanashima and Toru Furuichi  
(Japan)  
Study on the Effect of Water Sprinkling for Removal of Chemicals from Wastes  
Disposed in Closed System Landfill Sites

3B-5 Isamu Norimatsu, Yoshikazu Otsuka (Japan), Won Jong-Choul, Lee  
Kyeong-Ho (Korea), Masataka Hanashima and Toru Furuichi (Japan)  
Laboratory Experiment Based on In-situ Landfill Anaerobic-Aerobic  
Changeover Control and Water Supplying for Methane Gas Collection and  
Waste Stabilization

3B-6 Masafumi Fujita, Koji Tsuji and Yasushi Sakamoto (Japan)  
Stability Diagnosis of Final Landfill Sites for Municipal Solid Wastes Using  
Quinone Biomarker
3B-7 Yasushi Matsufuji, Ayako Tanaka and Osamu Hirata (Japan)
Reduction of Methane Gas from Landfills by Semiaerobic Landfill Type

3B-8 Kiyoshi Omine, Hidetoshi Ochiai, Noriyuki Yasufuku, Shintaro Iwanage, Yousuke Kobayashi (Japan)
Decomposition Effect of Organic Matter and Early Stabilization Technique of MSW Incineration Ash by Electrolytic Method

3B-9 Jun Imai, Atsushi Sakamoto, Kiyoshi Kuwamoto, Fuminori Hirosue, Masataka Hanajima and Toru Furuichi (Japan)
Experimental Review of Semi-Aerobics Function in Landfill of Incinerated Ash

3B-10 Takashi Mamiya, Kazuki Ozawa, Yuta Sone and Kensuke Arakawa (Japan)
Estimation of Landfill Gas Generation

3B-11 Kenji Iwasaki, Toru Furuichi, Noboru Tanikawa and Kazuei Ishii (Japan)
Proposal of Convenient Monitoring Method for Hazardous Gases Based on Methane during Waste Excavation in Reclamation Sites
**Session 3C**  
*(Ohgi Room, 10:00 – 12:20)*

**Hazardous and Special Waste Management**

*Chairmen / Somjai Karnchanawong (Thailand) and Takayuki Shimaoka (Japan)*

3C-1 Somjai Karnchanawong and Chuleeporn Veerakajohnsak (Thailand)

*Evaluation of Arsenic, Chromium and Copper Leaching from CCA-treated Wood*

3C-2 Eiichi Saito, Takayuki Shimaoka, Shingo Idemoto, Takuma Kano and Minoru Osa (Japan)

*A Study on the Behavior of Heavy Metal in the Coal Ash which Received the Aging Action*

3C-3 Fumitake Nishimura, Kazuki Kobayashi, Yutaka Onishi, Taku Fujiwara and Yoshiro Ono (Japan)

*Elution Characteristics of Phenols from Actual Shredder Dust*

3C-4 Kamarudin Samuding, Ismail Abustan, Mohd Tadza Abdul Rahman and Mohamad Haznain Isa (Malaysia)

*Heavy Metals Sorption Capabilities of Natural Soil-efb Mixtures*

3C-5 Prakash Parasivamurthy, S.C.Sharma, C.S.Chandrashekara Murthy, V.Jayaramareddy (India)

*Study on Flyash Added to Cement Stabilized Soil Blocks*

3C-6 Zhaozhou Qu, Jisheng Long, Jun Shao and Shanping Chen (China)

*Research on Pyrolysis of Waste Alkaline Zinc Manganese Dioxide Batteries in a Rotary Kiln*
**Thursday October 23 - Afternoon**

**Session 4A  (Eminence Hall A, 13:30 – 15:10)**

**Landfill Gas and Waste Degradation**

*Chairmen / Enri Damanhuri (Indonesia) and Tokio Hirata (Japan)*

**4A-1** Egodaha Gedara W. Gunawardana (Sri Lanka), Sohei Shimada (Japan), Benedict.F.A. Basnayake (Sri Lanka), Tomoko Iwata (Japan)

*Evaluation of Microbial Dynamic and Organic Waste Degradation in Municipal Solid Waste Landfills in Sri Lanka*

**4A-2** Benedict F.A Basnayake, Sampath A. Karunarathne, Heenpallaarachchige Y.R. Gunarathne, Sangeetha Murugathasan (Sri Lanka)

*Evaluation of Reactivity and Inhibitions in Municipal Solid Waste Dumpsites and Landfills in the Humid Tropical Regions in Sri Lanka*

**4A-3** Bryce Lloyd and Layyan Chan (Hong Kong)

*Optimizing LFG Utilization and ER Production in Asia*

**4A-4** Rachel Goldstein, Amanda Singleton, Dana Murray (USA) and Bryce Lloyd (Hong Kong)

*Methane to Markets Partnership – Utilizing Landfill Methane for Climate Change Mitigation in Developing Countries*

**4A-5** Ankur Gaur, Jin-Won Park, Ho-Jun Song & Jong-Jin Park (Korea)

*Treatment of Landfill Gas Using Chemical Absorption*
Session 4B  (Eminence Hall B, 13:30 – 15:10)

Hybrid Presentation (Oral presentation)

Poster Presentation (Rose Room, October 23, 15:10-16:00)

Chairmen / Kentaro Miyawaki (Japan)

Biorecycling

4B-1 Tudsri S., Buranakongcasri N., Nilagupta P. and Prasanpanich S. (Thailand)
   Effect of Wastewater Quality and Fertilizer Application on Chemical
   Composition of Corn Silage

4B-2 Bita Ayati, Hossein Ganidoust, Nader Mokhtarani (Iran)
   Composting of Excess Sludge from Wastewater Treatment Plants in Guilan
   Province, Iran

4B-3 Thurkathipana, N. and Mikunthan,G (Sri Lanka)
   Industrial and Restaurant Wastages Used For Mass Production of Beauveria
   Bassiana

4B-4 Yasunori Ohtsu, Ryuzo Yamada, Hiroshi Urasaki1, Tatsuya Misawa (Japan),
   Sebastian Popescu(Romania), and Hiroharu Fujita (Japan)
   Development of Microwave Reactor for Paper-Based Waste Neutralization

4B-5 Norihide Goshima, Toru Furuichi, Kazuei Ishii and Noboru Tanikawa (Japan)
   Cost-Benefit Analysis for the Construction of a Biogasification Plant for Food
   Waste in Metropolitan Area

4B-6 Fumiya Tsubo, Toru Furuichi, Kazuei Ishii, Noboru Tanikawa (Japan)
   Proposal for a Municipal Solid Waste Management System to Reduce Carbon
   Loading at a Landfill Site

4B-7 Shogo Nitta, Toru Furuichi, Kazuei Ishii, Noboru Tanikawa (Japan)
   Three-Dimensional Groundwater Simulation Based on an Estimation of the
   Nitrogen-Loading Rate from Different Nitrogen Sources at a Dairy Farm
4B-8 Shogo Hashimoto, Toru Furuichi, Noboru Tanikawa and Kazuei Ishii (Japan)

Evaluation of Biodiesel Fuel Production and Use Systems for the Promotion of Recycling of Waste Cooking Oil in Japan

4B-9 Tomoko Takeda, Toru Furuichi, Kazuei Ishii and Noboru Tanikawa (Japan)

Study on Reclamation Needs and the Effectiveness of Landfills Through a Questionnaire Survey
Session 4C  
(Ohgi Room, 13:30 – 15:10)

Integrated Waste Management

Chairmen / Jisheng Long (China) and Kazuo Yamamoto (Japan)

4C-1 Shifeng Zhang, Kayoko Yamamoto, Jun Izumi (Japan)

   Zero-emission Activities in the Seasoning and Milling/Flour Industries

4C-2 Kevin Roy Serrona, Jeong-soo Yu (Japan)

   Social Participation in Municipal Waste Management in Metro Manila,
   Philippines: Livelihood Support System and Landfill Management Strategies

4C-3 Xu Wenlong, Liu Jinghao (China)

   Current Problems and Countermeasures of Msw Treatment Industrialization in
   China

4C-4 Katsuya Nagata, Hiroshi Onoda, Motoshi Muraoka and Takuya Kirikawa
   (Japan)

   The Study of the Countermeasures Against Security and Reassurance in Waste
   Disposal and Recycling System

4C-5 Masoumeh Shafikhani and Fatemeh Anjadani (Iran)

   Role of Women in Environmental Protection in I.R. Iran
Session 5A  (Eminence Hall A, 16:30 – 18:10)

Thermal Treatment

Chairmen / Dong-Hoon Lee (Korea) and Masaki Takaoka (Japan)

5A-1 Jiro Etoh, Tohru Kyuragi and Takayuki Shimaoka (Japan)

Hydrothermal Treatment of Municipal Solid Waste Incinerator Bottom Ash as a Pretreatment of Landfill Disposal

5A-2 Kenji Yasuda, Ikuko Yoda and Katsuya Kawamoto (Japan)

Dioxin Surrogate under Steady-State Conditions of Waste Incinerators

5A-3 Li Jun, Shanping Chen, Xiaohong Zuo, Xiangyang Zhou (China)

The Off Design Characteristic Analysis of Multistage Axial Turbine

5A-4 Zhikun Zhang, Jun Shao, Shanping Chen, and Wenqin Fan (China)

Research on the Waste Low Heat Value in the Design and Power Generation Assessment

5A-5 Jun Kobayashi and Katsuya Kawamoto (Japan)

Development on Waste Wood Gasification Process Using Reforming Catalyst
Session 5B  (Eminence Hall B, 16:30 – 17:50)

Waste Management in Developing Countries

Chairmen / Ngo Kim Chi (Vietnam) and Yasushi Matsufuji (Japan)

5B-1 Praj-ya Sungsomboon, Taweep Chaisomphob, Nattakorn Bongochgetsakul (Thailand), and Ishida Tetsuya (Japan)
   Simulation-oriented Design for Composting Operation

5B-2 M.G. Neogi, Syed Samsuzzaman, Aminur Rahman, Harun-or-Rashid (Bangladesh)
   Effective Utilization of Municipality Garbage Under Ngo - municipality Collaboration

5B-3 Enri Damanhuri and Tri Padmi (Indonesia)
   Waste Recycling Capacity in Bandung City, Indonesia

5B-4 Ngo Kim Chi, Pham Nguyet Anh, Pham Hong Hai (Vietnam)
   3R Activities in Municipal Waste Management of Hanoi: Potential CDM Project and New Approach for Other Cities
Session 5C  (Ohgi Room, 16:30 – 18:50)

Leachate Treatment

Chairmen / Markku Pelkonen (Finland) and Kenichi Ushikoshi (Japan)

5C-1 Hoang V.Y, Jupsin H., Le V.C., Vasel J-L. (Belgium)
   Development of a SBR Bench-Scale to Optimize the Partial Nitrification Process in Landfill Leachate Treatment and its Possible Application in Vietnam

5C-2 Jérôme Denis, Sebastien Logette, Vonig Le Mee, Marielle Coste and Christian Tschocke (France)
   Analysis of Landfill Leachate for the Diagnostic and Prediction of Thermal Treatment

5C-3 Markku Pelkonen and Yu Wang (Finland)
   Landfill Leachate Treatment with Biofilm and Suspended Biomass Processes Combined with Membrane Post Treatment

5C-4 M. Sinan Bilgili, Ahmet Demir and Gamze Varank (Turkey)
   Effect of Aeration Rate on Leachate Characteristics in Aerobic Landfills

5C-5 Pascale Champagne and Chenxi Li (Canada)
   Biosorption of Cadmium (II) and Nickel (II) from Synthetic Landfill Leachate by Sphagnum Peat Moss and Crushed Mollusk Shells in Fixed-bed Columns

5C-6 Dhifallah Tarek, Trabelsi Ismail (Tunisia), Fumio Murano (Japan)
   Biological Treatment of Landfill Leachate: Case Study of Jbel Chekir Landfill Site of Tunis City, Tunisia
Poster session

(Rose Room, Oct. 22: 18:00 – 19:00 and Oct. 23: 15:10 – 16:00)

Integrated Waste Management
P-1 Risto Pöykiö, Hannu Nurmesniemi and Riitta L. Keiski (Finland)
Finnish Waste Legislation Requirements for Waste Acceptance in Landfill Disposal and for Utilization as a Fertilizer and an Earth Construction Agent (A Case Study)

P-2 Kosuke Takahashi and Kayoko Yamamoto (Japan)
A Study on Community Participation in Non-Industrial Waste Management in the Tama Area of Tokyo

P-3 Masazumi Kitsuka, Ichiro Kuroshima, Shigeo Kotake, Masaki Hayashi, Masahiko Hoshino, Shuji Watanabe, Yushi Tsurumi, Masataka Hanashima, Toru Furuichi (Japan)
Research Using Questionnaire on Actual Situation of Communications with Local Residents of Cs Disposal Facilities

P-4 N. Usui, S. Seki, T. Fukumoto, Y. Shimomura, T. Furuichi, and M. Hanashima (Japan)
Study on 3Rs of Wastes and Ecological Landfills

P-5 Kazuei Ishii, Toru Furuichi, Noboru Tanikawa and Koki Asaoka (Japan)
Development of Municipal Solid Waste Management Systems for Regional Planning Toward a Sound Material-Cycle Society

Waste Characterization and Collection
P-6 Wenmei Wang, Jun Shao, Xiangjun Sun, Yan Chen (China)
The Optimization of Municipal Solid Waste Collection and Transportation Routing

P-7 Fumitake Takahashi and Takayuki Shimaoka (Japan)
Metal Mobilization from Municipal Solid Wastes Incineration Residues through Metal Complexation with Organic and Inorganic Ligands
Biorecycling

P-8 Hiroyuki Harada, Yasuhiro Ueshima, Toru Shiomiichi, Katutoshi Inoue, Hidetaka Kawakita, Keiasuke Ohto (Japan)
Effect of Synthetic Zeolite Addition on Anaerobic Digestion of Artificial Garbage Waste

P-9 Naoya Akaishi, Yufeng Liu, Beili Wu, Mariko Adachi, Hideki Nakagome, Tohru Kamo and Hajime Yasuda (Japan)
Recovery of Useful Resource from the Epoxy Board by Solubilization

P-10 Noboru Tanikawa, Toru Furuichi, Kazuei Ishii and Shinsuke Moriyama (Japan)
Study of the Characteristics of Kitchen-Waste Composting in Japanese Local Municipalities Based on a Questionnaire Survey

Thermal Treatment

P-11 Takao Ando, Mayumi Jige, Hirotomo Ueno, Yu Hara, Shigeru Ueki, Katsuyoshi Arakane and Kenichi Nakano (Japan)
Chemical Stability of Heavy Metal Components in Industrial Waste Slag

Landfill Remediation and Reclamation

P-12 Kazuo Toge, Yasutaka Kuroki, Toru Furuichi, Noboru Tanikawa and Kazuei Ishii (Japan)
Applicability of the Air Injection Method for Risk Reduction of the Working Area in Illegal Dumping Site Restoration

P-13 Takuya Wada, Toru Furuichi, Noboru Tanikawa and Kazuei Ishii (Japan)
Applicability of the Resistivity Method for Estimation of Distribution of Waste and Contaminants in Illegal Dumping Sites
**Hazardous and Special Waste Treatment**

**P-14** Eun-ah Cho, Soraro Higuchi, Kazuo Tameda and Masataka Hanashima (Japan)

*Development of the Incinerator Ash Toxicity Tests with the Seeds from Salt-tolerant Plants*

**P-15** Fumitake Nishimura, Kazuki Kobayashi, Yutaka Onishi, Taku Fujiwara and Yoshiro Ono (Japan)

*Elution Characteristic of Phenols from Polyvinyl Chloride (PVC) by Temperature Influence*

**Landfill Design and Processes**

**P-16** Kazuo Tameda, Sotaro Higuchi (Japan), Eun-ah Cho (Korea), Namhoon Lee (Korea) and Masataka Hanashima (Japan)

*Early Stabilization and Resource Recovery of the Disposed Plastics in Landfills by Washing Processes as a Pre-Treatment before Landfilling*

**P-17** Yoshifumi Miyata, Sotaro Higuchi, Masataka Hanashima (Japan), Wenlong Xu (China)

*Development on the Early Stabilizing Landfill System*

**P-18** Fumiyoshi Ohno, Masataka Hanashima, Toru Furuichi (Japan)

*Implementation Feasibility Study on the Enlargement of Closed System Disposal Facilities in Japan*

**P-19** Wenlong Xu (China), Sotaro Higuchi, Ying-yi Ji, Eun-ah Cho, Kazuo Tameda (Japan), Jisheng Long (China), and Namhoon Lee (Korea)

*Leachate management systems of the MSW landfills in China, Korea, and Japan*

**P-20** Nai Chang-xin, Dong Lu, Wang Qi and Liu Yu-qiang (China)

*Research on the Leakage Location Technology in Landfill*
P-21 Shin Matsumoto, Katsuei Nishiyama, Kazuei Ishii, Masataka Hanashima, Tohru Furuichi (Japan)
Review and Investigative Work on Closed System Disposal Facilities in Service for an Improvement of Disposal Technologies(III)

P-22 Ryoji Matsumoto, Toshinori Ichimaru, Takaya Kato, Masataka Hanashima, Toru Furuichi (Japan)
A Study on Land Selection and Regional Development for Closed System Disposal Facilities

P-23 T. Harada, Y. Nishimura, T. Oshikata, T. Furuichi and M. Hanashima (Japan)
Changes in Barrier Systems and Leachate Treatment Technologies for Landfills in Japan

Landfill Gas and Waste Degradation

P-24 Yasuyuki Ishida, Sotaro Higuchi, Masataka Hanashima (Japan)
Early Stabilization of the Landfills with Organic Sludge

P-25 Yuya Takuwa, Tadao Matsumoto, Kazuyuki Oshita, Masaki Takaoka1, Shinsuke Morisawa and Nobuo Takeda (Japan)
Characterization of Trace Constituents in Landfill Gas and a Comparison of Sites

P-26 Jin-Kyu Park, Hye-Jin Kim, Sang-Hun Song, Sae-Rom Jeong, Min-Su Jeong, Nam-Hoon Lee (Korea)
Development of Anaerobic Bioreactor Landfill by Recirculation of Methanogenic Bacteria-Activated Leachate for Methane Recovery

P-27 Toshihiro Takeshita and Sotaro Higuchi (Japan)
Hydrogen Sulfide Generation from Plasterboard Investigated in Laboratory Scale Experiments

P-28 Takashi Kohinata, Kazuei Ishii, Ryuji Yanase, Masataka Hanashima, Tohru Furuichi (Japan)
Study of the Waste Stabilization Index on Closed System Disposal Facilities Based on Field Survey Data
**P-29** Komsilp Wangyao (Thailand), Masato Yamada (Japan), Desell Suanburi (Thailand), Kazuto Endo, Tomonori Ishigaki and Yugo Isobe (Japan)

*Effect of Leachate Distribution on Methane Emissions in Tropical Landfill*

**P-30** Masaaki Ebihara, Tsuyoshi Shimizu, Toshiyuki Terashima, Sadamitsu Kiyonaga, Yasuharu Matayoshi, Katsuyuki Ochiai, Toshihiro Takeshita, Sotaro Higuchi, Toshiro Oshikata, Masataka Hanashima (Japan)

*A Practical Study on Technology to Promote Disuse of Landfill Sites by the Combined Use of Oxygen-Enriched Water and a Chelating Agent - Part 2*

**P-31** Takashi Mamiya, Toru Furuichi, Noboru Tanikawa and Kazuei Ishii (Japan)

*Material Balance of Aerobic Degradation in Model Waste Layer Boxes*

**P-32** Youjung Kim, Kyeong-Ho Lee, Don-sik Ryu, Jong-choul Won and Nak-ju Kim (Korea)

*Study on the Characteristics of LFG Production Under the Leachate Recirculation System Using an Infiltration Layer*

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**Leachate Treatment**

**P-33** Gongming Zhou, Rongrong Hua, Yan He and Haitao Jiang (China)

*Treatment of Recirculated Landfill Leachate Under Oxygen-Limited Condition*